Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Original) A condition analysis apparatus comprising:

a three-dimensional sensor for measuring, at a plurality of sampling points, sampling-point-moves in a height direction of an object existing in a target area; and

area definition means for defining an area where a plurality of the sampling-point-moves are in the generally same phase.

2.   (Original) The condition analysis apparatus as recited in claim 1, further comprising:

information output means for outputting information of an area including the area defined by the area definition means.

3.   (Currently amended)   The condition analysis apparatus as recited in claim 1 ~~or 2~~, the three-dimensional sensor having:

a projection device for projecting a light pattern on the target area;

a image capturing apparatus for capturing an image of the target area while the light pattern is projected thereon; and

measurement means for measuring shifts of the pattern on the captured images,

wherein sampling-point-moves in the height direction of the object are measured at the plurality of points based on the shifts of the pattern measured.

4.   (Currently amended) The condition analysis apparatus as recited in ~~any one of claims 1 to 3~~ claim 2, the three-dimensional sensor having:

~~wherein, if a specific number or more of the sampling points in a specific area represent sampling-point-moves in the same specific type of phase, the area~~

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~~definition means defines the specific area as an area where the sampling-point-moves in the specific type of phase are occurring~~

a projection device for projecting a light pattern on the target area;

a image capturing apparatus for capturing an image of the target area while the light pattern is projected thereon; and

measurement means for measuring shifts of the pattern on the captured images,

wherein sampling-point-moves in the height direction of the object are measured at the plurality of points based on the shifts of the pattern measured.

5.   (Currently amended) The condition analysis apparatus as recited in ~~any one of claims 1 to 3~~ claim 1,

~~wherein the area definition means searches a specific area for sampling points representing sampling-point-moves in the same specific type of phase, forms a group of sampling points representing the sampling-point-moves in the generally same phase based on the search results, and defines the formed group of sampling points as an area where the sampling-point-moves in the generally same phase are occurring~~ wherein, if a specific number or more of the sampling points in a specific area represent sampling-point-moves in the same specific type of phase, the area definition means defines the specific area as an area where the sampling-point-moves in the specific type of phase are occurring.

6.   (Currently amended)   The condition analysis apparatus as recited in ~~any one of claims 1 to 4~~ claim 2,

~~wherein the area definition means defines two or more areas in different phases, defines a boundary between the two or more areas, and defines the areas divided by the boundary as new areas~~ wherein, if a specific number or more of the sampling points in a specific area represent sampling-point-moves in the same specific type of phase, the area definition means defines the specific area as an area where the sampling-point-moves in the specific type of phase are occurring.

7.   (Currently amended) The condition analysis apparatus as recited in ~~any one of claims 1 to 5~~ claim 3, ~~further comprising:~~

~~anomaly determination means for determining an anomaly of the object based on the area defined by the area definition means~~ wherein, if a specific number or more of the sampling points in a specific area represent sampling-point-moves in the same specific type of phase, the area definition means defines the specific area as an area where the sampling-point-moves in the specific type of phase are occurring.

8.   (New) The condition analysis apparatus as recited in claim 1,
wherein the area definition means searches a specific area for sampling points representing sampling-point-moves in the same specific type of phase, forms a group of sampling points representing the sampling-point-moves in the generally same phase based on the search results, and defines the formed group of sampling points as an area where the sampling-point-moves in the generally same phase are occurring.

9.   (New) The condition analysis apparatus as recited in claim 2,
wherein the area definition means searches a specific area for sampling points representing sampling-point-moves in the same specific type of phase, forms a group of sampling points representing the sampling-point-moves in the generally same phase based on the search results, and defines the formed group of sampling points as an area where the sampling-point-moves in the generally same phase are occurring.

10.   (New) The condition analysis apparatus as recited in claim 3,
wherein the area definition means searches a specific area for sampling points representing sampling-point-moves in the same specific type of phase, forms a group of sampling points representing the sampling-point-moves in the generally same phase based on the search results, and defines the formed group of sampling

points as an area where the sampling-point-moves in the generally same phase are occurring.

11.   (New)The condition analysis apparatus as recited in claim 1,

wherein the area definition means defines two or more areas in different phases, defines a boundary between the two or more areas, and defines the areas divided by the boundary as new areas.

12.   (New) The condition analysis apparatus as recited in claim 2,

wherein the area definition means defines two or more areas in different phases, defines a boundary between the two or more areas, and defines the areas divided by the boundary as new areas.

13.   (New) The condition analysis apparatus as recited in claim 3,

wherein the area definition means defines two or more areas in different phases, defines a boundary between the two or more areas, and defines the areas divided by the boundary as new areas.

14.   (New) The condition analysis apparatus as recited in claim 1, further comprising:

anomaly determination means for determining an anomaly of the object based on the area defined by the area definition means.

15.   (New) The condition analysis apparatus as recited in claim 2, further comprising:

anomaly determination means for determining an anomaly of the object based on the area defined by the area definition means.

16.   (New) The condition analysis apparatus as recited in claim 3, further comprising:

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anomaly determination means for determining an anomaly of the object based on the area defined by the area definition means.